

WHAT IS CLAIMED IS:

1. An isolated polynucleotide sequence comprising at least one junction sequence of corn event MON810 selected from the group consisting of SEQ ID NO:2 and SEQ ID NO:1, and complements thereof.
2. The isolated DNA sequence of claim 1 comprising at least 10 contiguous nucleotides of insert DNA sequence from corn event MON810 and at least 10 contiguous nucleotides of corn plant genome flanking DNA sequence from corn event MON810.
3. The isolated DNA sequence of claim 1 comprising at least 20 contiguous nucleotides of insert DNA sequence from corn event MON810 and at least 20 contiguous nucleotides of corn plant genome flanking DNA sequence from corn event MON810.
4. The isolated DNA sequence of claim 1 comprising at least 50 contiguous nucleotides of insert DNA sequence from corn event MON810 and at least 50 contiguous nucleotides of corn plant genome flanking DNA sequence from corn event MON810.
5. An amplicon comprising the DNA sequence of claim 1.
6. An isolated nucleotide sequence comprising a nucleotide sequence selected from the group consisting of SEQ ID NO:1 and SEQ ID NO:2 and complements thereof.
7. A polynucleotide primer sequence for detecting corn event MON810 in a sample comprising at least 15 contiguous nucleotides from position 1-244 of SEQ ID NO:3 or the complement thereof.
8. A pair of polynucleotide primer sequences for detecting corn event MON810 DNA in a sample comprising the primer sequence of claim 7 and a second primer sequence complementary to a sequence comprising at least 15 contiguous nucleotides from position 245-566 of SEQ ID NO:3.

9. A polynucleotide primer sequence for detecting corn event MON810 in a sample comprising at least 15 contiguous nucleotides from position 274-879 of SEQ ID NO:4 or the complement thereof.

10. A pair of polynucleotide primer sequences for detecting corn event MON810 DNA in a sample comprising the primer sequence of claim 9 and a second primer sequence complementary to a sequence comprising at least 15 contiguous nucleotides from position 1-273 of SEQ ID NO:4.

11. A method of detecting the presence of DNA corresponding to the corn event MON810 in a sample, the method comprising:

- (a) contacting the sample comprising DNA with a pair of primers that, when used in a nucleic-acid amplification reaction with genomic DNA from corn event MON810, produces an amplicon that is diagnostic for corn event MON810;
- (b) performing a nucleic acid amplification reaction, thereby producing the amplicon; and
- (c) detecting the amplicon.

12. The method of claim 11 wherein said amplicon is selected from the group consisting of SEQ ID NO:1 and SEQ ID NO:2 and complements thereof.

13. A method of detecting the presence of a DNA corresponding to the MON810 event in a sample, the method comprising:

- (a) contacting the sample comprising DNA with a probe that hybridizes under stringent hybridization conditions with genomic DNA from corn event MON810 and does not hybridize under the stringent hybridization conditions with DNA of a control corn plant;
- (b) subjecting the sample and probe to stringent hybridization conditions; and
- (c) detecting hybridization of the probe to the DNA.

14. A kit for detecting the presence of MON810 nucleic acids in a sample, said kit comprising at least one DNA molecule of sufficient length of contiguous nucleotides homologous or complementary to SEQ ID NO:1 or SEQ ID NO:2 that functions as a DNA primer or probe specific for corn event MON810 and its progeny.

15. A method of detecting corn event MON810 in a biological sample and progeny thereof comprising the steps of (a) extracting protein from a sample of corn event MON810 tissue; (b) assaying the extracted protein using an immunological method comprising antibody specific for the insecticidal protein produced by the MON810 event; and (c)  
5 detecting the binding of said antibody to the insecticidal protein.